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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,914	11/13/2003	Martin Freeman	PHA 23408R	9212

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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10519

EXAMINER

WINDER, PATRICE L

ART UNIT PAPER NUMBER

2145

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/712,914	FREEMAN, MARTIN	
	Examiner	Art Unit	
	Patrice Winder	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Reissue Applications

1. This application is objected to under 37 CFR 1.172(a) as lacking the written consent of all assignees owning an undivided interest in the patent. The consent of the assignee must be in compliance with 37 CFR 1.172. See MPEP § 1410.01.

A proper assent of the assignee in compliance with 37 CFR 1.172 and 3.73 is required in reply to this Office action.

2. This application is objected to under 37 CFR 1.172(a) as the assignee has not established its ownership interest in the patent for which reissue is being requested. An assignee must establish its ownership interest in order to support the consent to a reissue application required by 37 CFR 1.172(a). The assignee's ownership interest is established by:

(a) filing in the reissue application evidence of a chain of title from the original owner to the assignee, or

(b) specifying in the record of the reissue application where such evidence is recorded in the Office (e.g., reel and frame number, etc.).

The submission with respect to (a) and (b) to establish ownership must be signed by a party authorized to act on behalf of the assignee. See MPEP § 1410.01.

An appropriate paper satisfying the requirements of 37 CFR 3.73 must be submitted in reply to this Office action.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Having the user at two different cites as claimed renders the claim indefinite.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 21-24 and 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Balassanian, USPN 6,324,685 B1 (hereafter referred to as Balassanian).

13. Regarding claim 21, Balassanian taught a computing environment (column 3, lines 3-6) comprising:

- a) an origin resource coupled to a network for transmitted an entrusted program designed to accomplish at least one activity on behalf of a user (column 4, lines 9-16);
- b) a verification resource coupled to said network (column 4, lines 38-40, 48-50);

c) a destination resource, coupled to said network, for responding to said entrusted program after receipt for an indication of verification (column 3, lines 31-41); wherein said verification resource comprises means for verifying said entrusted program and providing said destination resource with said indication of verification (column 5, lines 26-53).

14. Regarding dependent claim 22, Balassanian taught said verification resource is a trusted resource coupled to said network (column 3, lines 3-6).

15. Regarding depending claim 23, Balassanian taught the network is an Internet (column 3, lines 6-8).

16. Regarding dependent claim 24, Balassanian taught the network operates using World Wide Web protocols (column 6, lines 48-53).

17. Regarding claim 29, Balassanian taught a method for achieving a result over a trusted computer network connecting a plurality of resources (column 3, lines 3-12), said method comprising the steps of:

a) transmitting from an origin resource, an entrusted program designed to accomplish at least one activity on behalf of a user at a destination resource (column 4, lines 9-16);

b) receiving and verifying said entrusted program at a verification resource (column 4, lines 38-40, 48-50); and upon verification of said entrusted program, processing said entrusted program to perform said at least one activity (column 3, lines 38-43).

18. Regarding dependent claim 30, Balassanian taught said user is located at said origin resource (column 6, lines 35-36).

19. Claims 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Narasimhalu et al., USPN 6,058,383 (hereafter referred to as Narasimhalu).

20. Regarding claim 25, Narasimhalu taught a computing environment comprising a plurality of sites connected on a network (column 4, lines 47-57), said sites comprising:

a) an originating site comprising means for sending over said network, an entrusted program designed to accomplish at least one activity on behalf of a user at a destination site (column 4, lines 38-43);

b) a trusted verification site comprising means for identifying the entrusted program and for sending a verification notice to said originating site and a destination site (column 6, lines 32-46, column 8, lines 35-43);

wherein said destination site comprises means for processing said entrusted program in response to said verification notice (column 8, lines 43-52).

21. Regarding dependent claim 26, Narasimhalu taught said trusted verification site is part of said destination site of claim 25 (column 6, lines 29-31).

22. Regarding dependent claim 27, Narasimhalu taught said network is an Internet (column 1, lines 41-45, column 4, lines 54-57).

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narasimhalu in view of Balassanian.

25. Regarding dependent claim 28, Narasimhalu does not specifically disclose the network operates using World Wide Web protocols. However, Balassanian taught an Internet network operates using World Wide Web protocols (column 6, lines 48-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made that incorporating Balassanian's World Wide Web protocols in Narasimhalu's system for distributing trusted software would have improved system effectiveness. The motivation would have been to utilize communication protocols most compatible with the Internet.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wright, U.S. Patent No. 5,633,931: taught a client making a request, a server appending a message signature to the generated response, the client generating a predicted message signature and the when the response is received comparing the generated message signature to the predicted message signature;

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Rubin, U.S. Patent No. 5,638,446: taught a process for using a trusted third party to create an electronic certificate for an electronic file that can be used to establish the file and verify the identity of the creator of the file;

Gosling, U.S. Patent No. 5,815,661: taught a class loader downloads objects and object viewers from remote computer nodes, before the viewer is executed the loader invokes a program verification procedures to verify the integrity of the downloaded viewer;

Dan et al., U.S. Patent No. 5,825,877: taught system wherein authentication is provided wherein a trusted third party signs a certificate to identify the author of a program and to secure its integrity;

Pinkas, U.S. Patent No. 5,926,549: taught a process for verifying the preservation of the integrity of an unprotected request sent by an anonymous client to a server, the request includes a flag which indicates whether the server must offer a guarantee of non-repetition of the requests and if so the global response to the request includes the response and a one-way compression function applied to the request and flag;

Renaud et al., U.S. Patent No. 5,958,051: taught implementing digital signatures for data streams and data archives, in one embodiment, the identifier for data of the data file includes at least one certificate authority, site certificate, etc. and verifying the authenticity of the data involves setting a security level for at least one of the certificate authority, the site certificate, etc.;

Mima et al., U.S. Patent No. 6,065,040: taught a system for retracting a mobile agent from a second execution environment back to a first execution environment, the retraction request is sent from the first execution environment;

Clawson, U.S. Patent No. 6,112,304: taught a denizen process is capable of receiving instructions, evaluating different locations in the operational environment in view of the received instructions, selecting a location based on the evaluation, moving itself to the selected location and executing at least a portion of the received instructions at the selected location;

Hardjono, U.S. Patent No. 6,115,699: taught a system for mediating delivery of a document between two network sites, a sending agent encrypts the document before sending to the receiving site, a receiving agent generates a receiving agent value used as the key for the decrypting the document, and the sending agent has not knowledge of the receiving agent value;

Witt et al., U.S. Patent No. 6,144,739: taught computer network protection using cryptographic sealing of software agents and objects, the cryptographic seal provides a cryptographic code hasher for performing cryptographic hashing on the code of the object;

Shear et al., U.S. Patent No. 6,157,721: taught secure computation environments are protected from bogus or rogue load modules, executables and other data elements through the use of digital signatures, seals and certificates issued by verifying authority;

Walsh, U.S. Patent No. 6,233,601 B1: taught a mobile agent object executes a first method on a first computer, migrates from a first computer to a second computer, and executes a second method on a second computer as designated in the mobile agent's itinerary;

Uwe G. Wilhelm, Cryptographically Protected Objects: taught CryPO (cryptographically protected objects) protocol transfers objects exclusively in encrypted form over the network to a TPE (tamper proof environment) and by adding a message digest to encrypted object, the protocol is extended to provide integrity protection;

Vipin Swarup, Trust Appraisal and Secure Routing of Mobile Agents: taught mobile agent protection against malicious attack through trust appraisal techniques involving authentication, code appraisal and secure routing;

Uwe G. Wilhelm, Sebastian Staamann, and Levente Buttny, Protecting the Itinerary of Mobile Agents: taught a tamper proof environment (TPE) is connected to a host computer that is under the control of the TPE owner, the interface allows the following operations on the TPE, upload, migrate or remove agents, facilitate interactions between host and agent, and verify properties of the TPE;

Tomas Sander and Christian F. Tschudin: Towards Mobile Cryptography: taught a proposal for how an agent might securely perform a cryptographic primitive, digital signing, in an untrusted execution environment;

Joseph TARDO and Luis VALENTA, Mobile Agent Security and Telescript: taught telescript is a software technology for building distributed applications using the mobile agent paradigm, telescript's approach to security is a four level security model comprising: object runtime safety, process safety, system safety and network security;

Michael Greenberg, J. Byington, and D. Harper, Mobile Agents and Security: taught host protection techniques used in mobile agent systems, such as encryption to ensure the authenticity, integrity and secrecy of data; security policy enforcement mechanisms used to manage access to information and resources; access limits imposed on user and their programs;

George C. Necula, Proof-carrying code: taught proof-carrying code (PCC) a mechanism by which a host system can determine with certainty that it is safe to execute a program supplied (possibly in binary form) by an untrusted source;

Tomas Sander, C. Tschudin, Protecting Mobile Agents Against Malicious Hosts: taught software-only approaches for providing computation privacy for mobile code and an approach on how a mobile agent can digitally sign its own output securely;

Uwe G. Wilhelm, L. Buttyan, and S. Staamann. On the Problem of Trust in Mobile Agent Systems; taught developing trust in the context of mobile agent system with relies on trusted tamper proof hardware to enable a tamper proof environment (TPE);

Uwe G. Wilhelm, Increasing Privacy in Mobile Communication Systems using Cryptographically Protected Objects: taught CryPO (cryptographically protected objects) protocol transfers objects exclusively in encrypted form over the network to a TPE (tamper proof environment) and by adding a message digest to encrypted object, the protocol is extended to provide integrity protection;

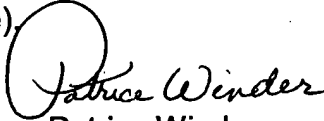
David M. Chess, Security Considerations in agent-based systems: taught agent systems face various the security challenges which present the following challenges: controlling program execution, protecting agents, trusting data, and revealing data; and

Joann J. Ordille, When Agents Roam, Who Can You Trust? Taught two-hop boomerang agents return to execute at home after running on the execution server and the security challenges associated with the agents.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrice Winder whose telephone number is 703-305-3938 until October 27, 2004 and 571-272-3935 thereafter. The examiner can normally be reached on Monday-Friday, 10:30 am-7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on 703-305-9705 until October 26, 2004 and 571-272-3896 thereafter. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patrice Winder
Primary Examiner
Art Unit 2145

November 12, 2004